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Problem solving, self- efficacy, and mental health in adolescents: Assessing the mediating role of assertiveness

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Abstract

This study investigated the direct and indirect effects of problem solving and self-efficacy on mental health in adolescents. Participants were 914 students (428 boys, 486 girls) in first grade of high school. They were asked to complete the General Self-efficacy Scale (GSE; Schwarzer & Jerusalem, 1995), the Problem Solving Inventory (PSI; Heppner & Petersen, 1982), the Gambrill-Richey Assertion Inventory (GRAI; Gambrill & Richey, 1975), and the General Health Questionnaire (GHQ-28; Goldberg, 1972). Results revealed that self-efficacy and problem solving were the direct and indirect predictors of mental health. Assertiveness was mediated on the relationship between self-efficacy and problem solving with mental health. The findings of this study provided evidence for the mediating mechanisms through which assertiveness mediated the relationships between self-efficacy and problem solving with mental health.

Keywords: Problem solving, self- efficacy, assertiveness, mental health, adolescents;

1. Introduction

Assertiveness in psychology is rooted in the education of social skills and behaviour therapy. Theorists consider it commonly as the proper expression of any kind of feelings, except stress, toward others (Furnham, 1979). Eskin (2003) views assertiveness as an important social skill which promotes an individual's well-being. Most definitions of assertiveness emphasize the direct expression of feelings, desires and thoughts in interpersonal areas. Other researchers conceptualize assertiveness as the direct and proper expression of one's needs and ideas without humiliating others without any fear in the process. Assertive training as a treatment approach is proposed for individuals who are suffering in the interpersonal situations or for individuals who are plagued with interpersonal problems (Wolpe, 1969). Wolpe & Lazarus (1966) defining assertiveness state includes the expression of anger and dissatisfaction, the term 'assertive' is associated with any kind of expression of personal rights and feelings which are socially acceptable.

Over the last decades, researchers have become increasingly interested in looking at the link between problem solving and adjustment. A considerable number of studies on social problem solving in adults have found it to be related to important negative psychological variables, including depressive symptoms, anxiety, and suicide risk (Nezu, 2004). Results of researches indicated that generalized self- efficacy and problem solving orientation are related, but are not redundant with each other. Moreover, results indicated that although generalized self-efficacy is

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an important predictor of psychological and physical functioning, problem orientation, specifically, negative problem orientation added incremental validity in predicting additional unique variance in measures of functioning (Zumberg, Chang, & Sanna, 2008).

Studies have shown that highly assertive individuals view a stressful situation, such as giving a speech before an audience, as a challenge while those with a low assertive evaluate it as a threatening stressful situation. Applying a problem-solving orientation usually involves appraising problems as challenges, thinking that the problems can be solved, and realizing that effective problem solving tends to require time and systematic effort (Nezu, 2004). Highly assertive individuals show a challenging automatic response pattern during speech while lowly assertive individuals show a threat response pattern (Tomaka, Palacios, Schneider et al., 1999). Assertive training reduces interpersonal anxiety and is used as part of the stress management program and it is a mechanism to reduce the physiological signs of stress (Williams & Stout, 1985). Studies on assertiveness and depression symptoms showed that non-assertive responses, especially in expression and self-projection, have a positive relationship with a depressed mood (Chan, 1993). Studies have also shown that there is a negative relationship between assertiveness and interpersonal anxiety on the one hand and between self-esteem and depression on the other hand. This shows that interpersonal anxiety originates from reduced assertiveness (e.g., Paterson, Green, & Ross, 2002). Tanck & Robbins (1979) showed that assertiveness was associated with problem solving and reliance on personal creativity to decrease tension. Studies have shown that there is a significant positive relationship between assertiveness and problem solving and reliance on invented solution to reduce interpersonal relationship. Paterson et al. (2002) showed that there is a high positive correlation between self-efficacy level and assertiveness and a high negative correlation with interpersonal anxiety.

Several studies have been conducted in relation with self-efficacy and its correlation with assertiveness, health and problem solving. The present study attempts to explain the direct and indirect effects of self-efficacy and problem solving on mental health in adolescents. Therefore, the present research aims to investigate the role of assertiveness as a mediating variable in the relationship of the self-efficacy and problem solving with mental health. The hypotheses assumed in this study are as follows: 1) Problem solving, self-efficacy and assertiveness have a positive relationship with mental health; and 2) Problem solving and self-efficacy have an indirect effect on the mental health by mediating the assertiveness.

2. Method

2.1. Participant

Participants were 914 students (428 male. Mean age = 15.45 yr., SD = .55 and 486 female. Mean age = 15.35 yr., SD = .45) randomly selected first-grade high school (grade=9) students studying in different schools in Tehran.

2.2. Measures

The Gambrill- Richey Assertion Inventory (GRAI)-The GRAI (Gambrill & Richey, 1975) is a 40-item self-report measure. Each item is rated on a five-point Likert scale ranging from 1 to 5 .This questionnaire was adapted to meet the local Iranian culture. A correlation of .46 was reported between the test scores and the results of the observation of the role play of the participants. In addition, Gambrill & Richey (1975) reported a reliability coefficient of .81 for this scale.

The Generalized Self-Efficacy Scale (GSES)-The GSES (Schwarzer & Jerusalem, 1995) consists of 10 items to which subjects respond on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale was shortened from an original set of 20 items to 10 items. The scale has been used in many studies and its reliability (Cronbach's alpha) was reported to be .75 and .90, thus, the adequate psychometric properties of English (e.g., Schwarzer & Jerusalem, 1995) and Farsi versions of the scale have been reported.

The Personal problem Solving Inventory (PPSI)-The PPSI (Heppner& Petersen, 1982) consisted of 32 items that measure the participant's perceptions of his problem solving behaviors and tendencies. Each item is rated on a 3-point Likert scale ranging from 1 to 3. It provides a total problem solving score and also three sub-scales rating to problem solving competence (PSC), personal control (PC) and approach- avoidance style (AA). This research was used the sum of scores.

The General Health Questionnaire (GHQ-28)-The GHQ- 28 (Goldberg, 1972) consists of 28 items. In the GHQ-28 the respondent is asked to compare his recent psychological state with his usual state. In this study the Likert scoring procedure (1, 2, 3, 4) for each item four answer possibilities are available (1-not at all, 2-no more than usual, 3-rather more than usual, 4- much more than usual). The total scale score ranges from 28 to 112 that the higher the score show the poorer the psychological well-being. It provides four sub-scales rating to somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression.

3. Results

All descriptive analyses were conducted in SPSS Version 15 and the path analysis was conducted in path analysis of LISREL.

Table 1. Descriptive statistics, Cronbach's alpha and variables between correlations

variables	Cronbach's alpha	Mean	SD	1	2	3	4
1. Self-efficacy	.75	39.24	5.53	1			
2. Problem solving	.82	69.21	8.31	.42	1		
3. Assertiveness	.85	152.98	19.32	.27	.25	1	
4. Mental health(GHQ)	.92	27.49	15.04	-.28	-.40	-.24	1

All correlations were significant at p=.01 or less.

The present model aims to assess the structural relationship between problem solving, self-efficacy, assertiveness and mental health in students. Figure 1 illustrates the standard coefficients for direct and indirect paths.

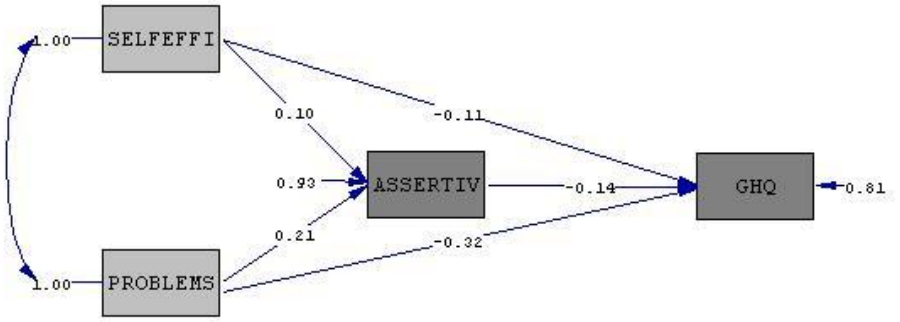

Figure 1: Direct and indirect paths standard coefficients for the effect of self-efficacy and problem solving on mental health mediated by assertiveness

As can be seen, results supported this hypothesis. The self-efficacy has a direct positive correlation with assertiveness and negative correlation with GHQ {β=-.11, t=-3.29}. Assertiveness was mediated on the relationship between self-efficacy and GHQ {β=.10, t=2.89 & β=-.14, t=-4.36}. Furthermore, problem solving has a direct positive correlation with assertiveness and negative correlation with GHQ {β=-.32, t=-9.33}. In addition, assertiveness was mediated on the correlation between problem solving and GHQ {β= .21, t= 5.74 & β= -.14, t= -4.36}. Overall, this model explains 19% of the variance in mental health among students. Furthermore, the correlation between assertiveness and mental health is negative and significant. Overall, this model explains 19% of the variance in mental health among students.

4. Discussion

It seems that the findings in the present study imply that poor assertiveness causes lower social relationship and alienation which in turn may lead to withdrawal and interpersonal relationship problems and depression. These points have been well covered in assertive training and other programs (Paterson, Green, & Ross, 2002). Highly assertive individuals are more than lowly assertive individuals likely to have an internal locus of control. Moreover, these individuals suffer from fewer health problems and incidences of illness. Supportive relationships are strong protective factors against mental health problems and may increase the sense of self-efficacy (Eskin, 2003). Studies

have revealed that older students are more assertive than younger ones and this is probably because of the fact that as one grows up, more interpersonal relationships are learned which in turn increase a sense of confidence in interpersonal relationship. Having a high level of self-efficacy, an individual responds more assertively in interacting with others. Assertiveness is an important social skill which promotes an individual's well-being (Eskin, 2003). Assertiveness is in fact about self-confidence. As soon as an individual gains self-confidence, an internal source of positive feelings and thoughts toward self and others forms. Individuals with low self-confidence are entrapped with negative thoughts and feelings toward self and others, which leads to a non-assertive disposition. Therefore, assertiveness is about self-confidence, i.e. having a positive attitude toward self and others. This implies being frank and respectful toward self and others. When an individual is self-confident and assertive, they can show an acceptance of others and their attitudes even if they are not congenial (Townend, 1991). Studies have established the role of social support in assertiveness. Research results also show that there is a positive relationship between assertiveness and perceived social support and the number of friends one has (Eskin, 2003) and social support has significant role in individuals' adaptation and health (Cheung & Sun, 2000). Eskin (2003) contends that supportive relationships are a strong protective power against mental health problems and with a high sense of self-efficacy, an individual responds more assertively in interaction with others.

Efficacy expectations determine how much effort individuals exert in facing obstacles and opposing expectations and how much resistant they will turn out to be. Individuals opt out of activities perceived to be beyond their capacity but involve in activities and challenges that they feel they can mange. With the choices they make, these individuals gain competencies, interests and different social networks which determine their course of life. This is because social factors in selected environments continuously improve specific competencies, values and interests long after being selected (Bandura, 2006). Self-efficacy influences the way individuals feel, think, self-motivate and behave. These beliefs are influential in four ways: cognitive, motivational, emotional and selection processes (Bandura, 1993). Individuals who believe that they may control threats cannot imagine a destructive thought pattern but those who believe the reverse experience a higher anxiety provoking stimulus. They look upon with anger on many aspects of their environment as threats and cause distress for themselves and harm their level of performance (Bandura, 1997).

In general, there is a positive correlation between self-efficacy and positive attitude and tackling the problem. In other words, the more an individual has wrestled with the problem, the higher his self-efficacy expectations and the more positive his attitude. On the other hand, the lower the self-efficacy of the individual, the higher a sense of threat and a more negative attitude. Self-efficacy expectations have a positive relationship with positive attitude and stress reducing strategies and a negative relationship with psychological symptoms and self-isolation and passive emotional acceptance /avoidance strategies (Karademas & Kalantzi- Azizi, 2004). Blazer (2002) contends that the centrality of self-efficacy concept is intertwined throughout the definition of new constructs of health, including a sense of identity (self-acceptance, self- esteem and self-confidence), investment in life and self-potential, a sense of integrity of life meaning and goal, autonomy, exact perception of reality, environment control and interpersonal relationship. Therefore, self-efficacy can reduce a sense of loneliness, shame, avoidance of social risks, self-depressing, low self-esteem and the weakness of social skills and in turn, promote the mental health. Bandura (1997) believes that low self-efficacy leads to depression in three direct ways: 1) inability to control the thoughts leading to depression, i.e. low self-efficacy in individuals in controlling destructive thoughts increases depression; 2) low self-efficacy scuppers the hope in individuals and a sense of hopelessness and low temperament weakens self-efficacy, resulting in a vicious circle; and 3) individuals with low self-efficacy cannot form a satisfactory social relationships to facilitate the tolerance of chronic stress. However, an important point about the relationship between self-efficacy and health is that social anxiety may have a negative effect on social self-efficacy in a socially threatening situation as well as on the sense of curiosity and feelings (Kashdan & Roberts, 2004). Therefore, the relationship between self-efficacy and some of the variables of mental health seems to be more complicated than commonly imagined.

References

Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on psychological Science,* 1, 164-180.
Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
Bandura, A. (1993). Perceived self- efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.

Blazer, D. G. (2002). Self- efficacy and depression in later life: a primary prevention proposal. *Ageing & Mental Health*, 6(4), 315-324.

Cheung, S-K & Sun, S. Y. K. (2000). Effects of self- efficacy and social support on the mental health conditions of mutual and organization members. *Social Behavior and Therapy*, 28(5), 413-422.

Chan, D. W. (1993). Components of assertiveness: Their relationships with assertive rights and depressed mood among Chinese college students in Hong Kong. *Behavior Research and therapy*, 31(5), 529-538.

Elliott, T. R., & Gramling, S. E. (1990). Personal assertiveness and effects of social support among college students. *Journal of Counseling Psychology*, 31(4), 427-436.

Eskin, M. (2003). Self - reported assertiveness in Swedish an Turkish adolescents: A cross cultural comparison. *Scandinavian Journal of psychology*, 44, 7-12.

Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology*, 48, 150–170.

Furnham, A.(1979). Assertiveness in three cultures: Multidimentionality and cultural differences. *Journal of Clinical Psychology*, 35, 522- 527.

Gambrill, E. D., & Richey, C. A. (1975). An assertion inventory for use in assessment and research. *Behavior Therapy*, 6, 550–561.

Goldberg, D. (1972). *The Detection of Psychiatric Illness by Questionnaire*, London: Oxford University Press.

Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal problem solving inventory. *Journal of Counseling Psychology*, 29, 66-75.

Karademas, E. C., & Kalantzi- Azizi, A. (2004). The stress process, self- efficacy expectations, & psychological health. *Personality and Individual Differences*. 37, 1033-1043.

Kashdan, T. B., & Roberts, J. E. (2004). Social anxiety's impact on affect, curiosity, and social self-efficacy during a high self focus social treat situation. *Cognitive Therapy and Research*, 28, 119-141.

Nezu, A. M. (2004). Problem solving and behavior-therapy revisited. *Behavior Therapy*, 35, 1–33.

O_Leary, A. (1992). Self-efficacy and health: Behavioral and stress–physiological mediation. *Cognitive Therapy and Research*, 16, 229–245.

Paterson, M., Green, J. M., & Ross, F. (2002). Probability of assertive behavior, interpersonal anxiety and self-efficacy of South African registered dititians. *Hum Nutr Dietet*, 15,9-17.

Schwarzer, R and M Jerusalem. (1995). Generalized Self-Efficacy Scale. In: Weinman, J, S Wright, and M Johnson (eds.) *Measures in health psychology: A user's portfolio, Causal and control beliefs*. pp. 35-37, Windsor England: Nfer-Nelson.

Tanck, r. H., & Robbins, P. R. (1979). Assertiveness, locus of control and copping behaviors used to diminish tension. *Journal of Personality Assessment*, 43,4.

Tomaka, J., Palacios, R., Schneider, K. T., Colotla, M., Concha, J. B., & Herrald, M. M. (1999). Assertiveness predicts treat and challenge reactions to potential stress among women. *Journal of Personality and Social Psychology*, 76(6), 1008-1021.

Townend, A. (1991), *Developing Assertiveness*, Routledge, London.

Williams, J. M., & Stout, J. K. (1985). The effect of high and low assertiveness on locus of control and health problems. *The Journal of Psychology*, 119, 169-173.

Wolpe, J. (1969). *The practice of behavior therapy* (1st ed.). New York: Pergamon.

Wolpe, J., & Lazarus, A. A. (1966). *Behavior therapy techniques* New York: Pergamon Press.

Zumberg, K. M,. Chang, E. C., & Sanna, L. J.(2008). Does problem orientation involve more than generalized self-efficacy? Predicting psychological and physical functioning in college students. *Personality and Individual Differences*, 45, 328–332.